

Serial No. 09/606,222

Page 2

Amendments to the Claims:

1-19. (Canceled).

20. (Currently amended) A nucleic acid molecule for removing a ~~foreign DNA~~ nucleic acid sequence that has been inserted into a host cell, the molecule comprising in sequential order (a) a recombinase site, (b) a ~~regulatable~~ promoter operably linked to (c) a recombinase gene; (d) ~~the foreign DNA~~ said nucleic acid sequence and (e) a recombinase site.

21. (Previously presented) The molecule of claim 20, wherein said recombinase site is selected from the group consisting of loxP and FRT.

22. (Previously presented) The molecule of claim 20, wherein said recombinase gene is selected from the group consisting of Cre and FLP.

23. (Previously presented) The molecule of claim 21, wherein said recombinase gene is selected from the group consisting of Cre and FLP.

24. (Previously presented) The molecule of claim 20, wherein said molecule further comprises a gene which is desired to be expressed in a cell.

25-31. (Canceled).

Serial No. 09/606,222

Page 3

32. (Currently amended) The nucleic acid molecule of claim 20, wherein said ~~foreign DNA~~ nucleic acid sequence is a wild-type allele or fragment thereof of a gene.

33-42. (Canceled).

43. (Currently amended) A method for deleting a nucleic acid sequence from a ~~DNA molecule that has been introduced into a~~ mouse cell genome, ~~whereby said sequence is deleted in a~~ regulatable manner utilizing a ~~regulatable~~ promoter, wherein said nucleic acid sequence is part of a said DNA molecule comprising in sequential order a recombinase site, a ~~regulatable~~ promoter operably linked to a recombinase gene, ~~a foreign DNA~~ said nucleic acid sequence and a recombinase site, the method comprising growing said mouse cell such that the ~~regulatable~~ promoter is active, said recombinase gene is expressed in the cell and said ~~foreign DNA~~ nucleic acid sequence is deleted.

44. (Previously presented) The method of claim 43, wherein the DNA molecule further comprises a gene which is desired to be expressed in the cell.

45. (Currently amended) The method of claim 44, wherein said ~~foreign DNA~~ nucleic acid sequence is heterologous DNA.

46. (Previously presented) The method of claim 44, wherein the promoter is specific to the male or female gamete.

47. (Currently amended) The method of claim 43, wherein the mouse cell is ~~a cell in a mouse~~ transgenic for said DNA molecule and

Serial No. 09/606,222

Page 4

~~the foreign DNA~~ said nucleic acid sequence is deleted during gametogenesis in the mouse.

48. (Currently amended) The method of claim 47, wherein said ~~foreign DNA~~ nucleic acid sequence is heterologous DNA.

49. (Currently amended) A transgenic mouse comprising a nucleic acid molecule comprising in sequential order (a) a recombinase site, (b) a ~~regulatable~~ promoter operably linked to (c) a recombinase gene, (d) a ~~foreign DNA~~ nucleic acid sequence and (e) a recombinase site, wherein said ~~DNA~~ nucleic acid molecule has been stably integrated into the genome of said transgenic mouse.

50. (Currently amended) The method of claim 43, wherein said ~~foreign DNA~~ nucleic acid sequence is heterologous DNA.

51. (Currently amended) The method of claim 43, wherein said ~~foreign DNA~~ nucleic acid sequence is a wild-type allele or fragment thereof of a gene.

52. (Currently amended) The method of claim 44, wherein said ~~foreign DNA~~ nucleic acid sequence is a wild-type allele or fragment thereof of a gene.

53. (Currently amended) The method of claim 43 wherein the cell is part of a tissue and the ~~regulatable~~ promoter is a promoter specifically expressed in said tissue.

54. (Currently amended) The method of claim 53 wherein the ~~DNA~~ nucleic acid molecule further comprises a gene which is desired to be expressed in the tissue.

Serial No. 09/606,222

Page 5

55. (Currently amended) The method of claim 53, wherein said ~~foreign-DNA~~ nucleic acid sequence is a wild-type allele or fragment thereof of a gene.

56. (Currently amended) The method of claim 53, wherein said ~~foreign-DNA~~ nucleic acid sequence is heterologous DNA.

57. (Previously presented) The method of claim 53 wherein said tissue is male or female gametic tissue.